Contents Volume 60 (1991)

Vol. 60, No. 1 (August 1, 1991)

Editorial v
Oscillatory mode of the operation of an asymmetric poly(vinyltrimethylsilane) membrane
Ye.P. Ageev, V.S. Smirnov and A.V. Vershoubskii (Moscow, USSR) 1
Gas and vapor permeation and sorption in poly(trimetylsilylpropyne)
N.A. Platé, A.K. Bokarev, N.E. Kaliuzhnyi, E.G. Litvinova, V.S. Khotimskii, V.V. Volkov and Yu.P. Yampol'skii (Moscow, USSR) 13
Porous polycarbonate phase-inversion membranes
M. Bodzek and J. Bohdziewicz (Gliwice, Poland) 25
Non-equilibrium microstructural and transport characteristics of glassy poly(ethylene terephthalate)
W.R. Vieth, L.H. Dao and H. Pedersen (Piscataway, NJ, USA) 41
Preparation and properties of polyimide ultrafiltration membranes
Dong Bo and Zhu Kun (Gansu, People's Rep. China) 63
Activity of alkaline phosphatase bound to polysulfone membranes
J.A. Hughes, S. Zhou, D. Bhattacharyya and M. Jay (Lexington, KY, USA) 75
Effect of permeate to feed ratio on protein recovery in membrane plasma fractionation
C. Charcosset, M.Y. Jaffrin and L.H. Ding (Compiègne, France) 87
Solubility and permeability of quenched poly(2,6-dimethyl phenyleneoxide) with various microvoids
Y. Tsujita, H. Hachisuka, T. Imai, A. Takizawa and T. Kinoshita (Nagoya, Japan) 103

Meeting Announcements 113
Meetings Calendar 115

Vol. 60, Nos. 2+3 (August 23, 1991)

Editorial 119
Submission of manuscripts 121
Preface to "From pig bladders and cracked jars to polysulfones: an historical perspective on membrane transport
J.L. Anderson (Pittsburgh, PA, USA) 123
From pig bladders and cracked jars to polysulfones: an historical perspective on membrane transport
E.A. Mason (Providence, RI, USA) (*Review*) 125
The relative contribution of adsorption to the overall sorption and transport of small molecules in amber
N.R. Miranda, B.D. Freeman and H.B. Hopfenberg (Raleigh, NC, USA) 147
Estimation of equilibrium compositions in dialysis of aqueous solutions of metal sulfates, $MeSO_4$, on cation-exchange membranes
J. Macenauer, M. Handlířová and I. Machač (Pardubice, Czechoslovakia) 157
A thermodynamic description of membrane equilibria, dissipation and transport
B. Tomicki (Wrocław, Poland) 169
Methanol–hydrogen separation by capillary condensation in inorganic membranes
D.P. Sperry, J.L. Falconer and R.D. Noble (Boulder, CO, USA) 185

Contents Volume 60 (1991)

Vol. 60, No. 1 (August 1, 1991)

Editorial v
Oscillatory mode of the operation of an asymmetric poly(vinyltrimethylsilane) membrane
Ye.P. Ageev, V.S. Smirnov and A.V. Vershoubskii (Moscow, USSR) 1
Gas and vapor permeation and sorption in poly(trimetylsilylpropyne)
N.A. Platé, A.K. Bokarev, N.E. Kaliuzhnyi, E.G. Litvinova, V.S. Khotimskii, V.V. Volkov and Yu.P. Yampol'skii (Moscow, USSR) 13
Porous polycarbonate phase-inversion membranes
M. Bodzek and J. Bohdziewicz (Gliwice, Poland) 25
Non-equilibrium microstructural and transport characteristics of glassy poly(ethylene terephthalate)
W.R. Vieth, L.H. Dao and H. Pedersen (Piscataway, NJ, USA) 41
Preparation and properties of polyimide ultrafiltration membranes
Dong Bo and Zhu Kun (Gansu, People's Rep. China) 63
Activity of alkaline phosphatase bound to polysulfone membranes
J.A. Hughes, S. Zhou, D. Bhattacharyya and M. Jay (Lexington, KY, USA) 75
Effect of permeate to feed ratio on protein recovery in membrane plasma fractionation
C. Charcosset, M.Y. Jaffrin and L.H. Ding (Compiègne, France) 87
Solubility and permeability of quenched poly(2,6-dimethyl phenyleneoxide) with various microvoids
Y. Tsujita, H. Hachisuka, T. Imai, A. Takizawa and T. Kinoshita (Nagoya, Japan) 103

Meeting Announcements 113
Meetings Calendar 115

Vol. 60, Nos. 2+3 (August 23, 1991)

Editorial 119
Submission of manuscripts 121
Preface to "From pig bladders and cracked jars to polysulfones: an historical perspective on membrane transport
J.L. Anderson (Pittsburgh, PA, USA) 123
From pig bladders and cracked jars to polysulfones: an historical perspective on membrane transport
E.A. Mason (Providence, RI, USA) (*Review*) 125
The relative contribution of adsorption to the overall sorption and transport of small molecules in amber
N.R. Miranda, B.D. Freeman and H.B. Hopfenberg (Raleigh, NC, USA) 147
Estimation of equilibrium compositions in dialysis of aqueous solutions of metal sulfates, $MeSO_4$, on cation-exchange membranes
J. Macenauer, M. Handlířová and I. Machač (Pardubice, Czechoslovakia) 157
A thermodynamic description of membrane equilibria, dissipation and transport
B. Tomicki (Wrocław, Poland) 169
Methanol–hydrogen separation by capillary condensation in inorganic membranes
D.P. Sperry, J.L. Falconer and R.D. Noble (Boulder, CO, USA) 185

Three layer membrane model for characterizing ultrafiltration membranes
A.P. Peskin, M.K. Ko and J.J. Pellegrino (Boulder, CO, USA) 195
The effects of transition metal complexes on the permeation of small gas molecules through cellulose acetate membranes
K.-I. Lee, I.-W. Shim (Seoul, S. Korea) and S.-T. Hwang (Cincinnati, OH, USA) 207
Asymmetric membrane formation via immersion precipitation method. I. Kinetic effect
Y.S. Kang, H.J. Kim and U.Y. Kim (Seoul, S. Korea) 219
Gas transport in polyurethane–polystyrene interpenetrating polymer network membranes. I. Effect of synthesis temperature and molecular structure variation
D.S. Lee, D.S. Jung, T.H. Kim (Kyungki, S. Korea) and S.C. Kim (Seoul, S. Korea) 233
Bubble point measurements on large areas of microporous membranes
G. Reichelt (Obernburg, Germany) 253
Drop size prediction in liquid membrane systems
A. Sharma, A.N. Goswami and B.S. Rawat (Dehradun, India) 261
Modification of polysulfone ultrafiltration membranes with UV irradiation and hydrophilicity increasing agents
M. Nyström and P. Järvinen (Lappeenranta, Finland) 275
Facilitated transport mechanism in fixed site carrier membranes
R.D. Noble (Boulder, CO, USA) 297
Preparation of water and alkali durable glass membrane coated on porous alumina tubing by sol–gel method
T. Yazawa, H. Tanaka, H. Nakamichi (Ikeda, Japan) and T. Yokoyama (Osaka, Japan) 307
$^{16}O/^{18}O$ and H/D separation factors for liquid/vapor permeation of water through an hydrophobic membrane
A.G. Chielewski, G. Zakrzewska-Trznadel (Warszawa, Poland), N.R. Miljevic (Belgrade, Yugoslavia) and W.A. Van Hook (Knoxville, TN, USA) 319

Instructions to Authors 331
Meeting Announcement 335
Meetings Calendar 336
Author Index Volume 60 (1991) 338
Subject Index Volume 60 (1991) 339

SUBSCRIPTION INFORMATION

Subscription price for 1991 (Vols. 55–63): Dfl. 2925 plus Dfl. 270 (p.p.h.) = Dfl. 3195 (approx. US $1682). On a combined subscription to both *Journal of Membrane Science* and *Desalination* a discount of 10% applies. The Dutch guilder price is definitive. The U.S. dollar price is subject to exchange-rate fluctuations and is given only as a guide. All back volumes are available. Our p.p.h. (postage, package and handling) charge includes surface delivery of all issues, except to subscribers in the USA, Canada, Australia, New Zealand, P.R. China, India, Israel, South Africa, Malaysia, Thailand, Singapore, South Korea, Taiwan, Pakistan, Hong Kong, Brazil, Argentina and Mexico, who receive all issues by air delivery (S.A.L. — Surface Air Lifted) at no extra cost. For Japan, air delivery requires 50% additional charge; for all other countries airmail and S.A.L. charges are available upon request. Subscription orders can be entered only by Calendar year (Jan.–Dec.) and should be sent to: Elsevier Science Publishers B.V., Journals Department, P.O. Box 211, 1000 AE Amsterdam, The Netherlands. Tel: (020) 5803642; fax: (020) 5803598; telex 18582. A specimen copy will be sent on request. Claims for issues not received should be made within three months of publication of the issue. If not, they cannot be honoured free of charge. Customers in the USA and Canada wishing information on this and other Elsevier journals, please contact Journal Information Center, Elsevier Science Publishing Company, Inc., 655 Avenue of the Americas, New York, NY 10010. Tel: (212) 633-3750; fax: (212) 633-3764. For advertising rates apply to the publishers.